

Claims

1. A method of operating a printer of the kind comprising an array of dot printing elements extending in 5 a first direction relative to a page to be printed and which prints at least a part of the page during relative movement between the array and the page in a second direction at an angle to the first direction, the array comprising a plurality of groups of elements with 10 redundancy among the elements of the group, the method comprising, in respect of at least one of said groups, initially commencing printing using a subset of the elements in the group and, during the course of printing, increasing the number of elements available to print in 15 the group.

2. The method claimed in claim 1, wherein each redundant group is arranged to print a respective row of dots in the second direction.

20 3. The method claimed in claim 1 or 2, wherein the number of elements in the group available to print is increased as a function of the distance travelled by the array.

25 4. The method claimed in claim 1 or 2, wherein the number of elements in the group available to print is increased as a function of the number of firing pulses sent to the elements of the group.

30 5. The method claimed in claim 1, wherein each element newly made available to the group is initially made available for use less frequently than the existing element(s).

6. The method claimed in claim 1, wherein at least one element in the group is serviced prior to printing so that it is at least partially operational at the
5 commencement of the print job, printing being commenced using the said at least one serviced element and one non-serviced element, the non-serviced element initially being made available for use less frequently than the said at least one serviced element.

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7. The method claimed in claim 6, comprising, prior to commencing printing, identifying portions of the array of printing elements which will be needed at least for a first pass of the array relative to the first page of the
15 print job, and servicing printing elements according to the array portions so identified whereby one or more printing elements outside the identified array portions are not serviced.

20 8. The method claimed in claim 1, wherein faulty printing elements, as identified by a faulty printing element database, are excluded from being made available to the group.

25 9. The method claimed in claim 1, wherein the array of printing elements extends substantially fully across the page in the first direction.

30 10. The method claimed in claim 1, wherein the printer is an inkjet printer and the dot printing elements are inkjet nozzles.

11. An incremental printer comprising a plurality of printing elements grouped into redundant groups, each

group being arranged to print substantially different portions of a given page of a printjob, the printer being adapted, when commencing a printjob, to control at least one redundant group of printing elements such that only a
5 subset of the printing elements in that group are used to print, the printer being further arranged to subsequently increase the number of printing elements in that group which are used to print.

10 12. An incremental printer according to claim 11, wherein each redundant group is arranged to print a row or column of image data.

15 13. An incremental printer according to claim 12, wherein the elements are arranged to move relative to the image being printed and the number of elements in the subset of that group is increased in dependence upon the degree of movement between the elements and the image being printed.

20 14. An incremental printer according to claim 12, wherein the number of elements in the subset of that group is increased in dependence upon the cumulative number of firing pulses sent to the elements of the group
25 during the printing of the printjob.

15. An incremental printer according to claim 11, the printer being further arranged, when increasing the number of printing elements in subset of that group, to cause the one or more printing elements newly included in the subset to print for a predetermined duration at a frequency lower than that of one or more printing elements previously included in the subset.
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16. An incremental printer according to claim 11,
wherein at least one element in that group is serviced
prior to commencing the printjob.

5 17. An incremental printer according to claim 11,
wherein the plurality of printing elements form a page
wide or a page high array.

10 18. An incremental printer according to claim 11,
wherein the printer is an inkjet printer and the printing
elements are inkjet nozzles.

15 19. A printer control circuit adapted to control a
printer to perform the method claimed in any one of
claims 1 to 10.

20. A computer readable medium containing program
instruction which, when executed by a data processing
device, control a printer to perform the method claimed
in any one of claims 1 to 10.